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CURRICULUM VITAE of Lorne A. Babiuk

PERSONAL

Born - January 25, 1946
Married - Betty Lou Wagar
Children - Shawn (born 1975) and Kimberley (born 1977)
Home Address - 245 East Place, Saskatoon, SK S7J 2Y1 PH: 306-373-3855

ACADEMIC CREDENTIALS

B.S.A., University of Saskatchewan, 1967, College of Agriculture, Soil Science
M.Sc., University of Saskatchewan, 1969, Department of Soil Science, Soil Microbiology
Ph.D., University of British Columbia, 1972, Department of Microbiology, Virology
D.Sc., University of Saskatchewan, 1987, Department of Veterinary Microbiology

OTHER CREDENTIALS

RM (CCM) Registered Microbiologist - Canadian College of Microbiologists
FIDSA - Fellow Infectious Disease Society of America
FRSC - Fellow Royal Society of Canada
Member - European Academy of Science
Saskatchewan Order of Merit Award - 2004

APPOINTMENTS AND PROMOTIONS (U of S)

Assistant Professor, Probationary, June 1973 - Department of Veterinary Microbiology
Associate Professor, Probationary, July 1, 1975 - Department of Veterinary Microbiology
Associate Professor, Tenured, July 1976 - Department of Veterinary Microbiology
Professor, July 1979-present - Department of Veterinary Microbiology
Co-ordinator Respiratory Disease Program, 1980-1986 - Veterinary Infectious Disease Organization
NSERC Chair in Biotechnology, 1985-1995 - University of Saskatchewan/BIOSTAR Inc.
Associate Director (Research), 1984-1993 - Veterinary Infectious Disease Organization (VIDO)
Director, 1993-present - Vaccine & Infectious Disease Organization (VIDO)
Canada Research Chair (Vaccinology) - Tier I - 2001-present

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HONORS (MEDALS, FELLOWSHIPS, PRIZES)

Saskatchewan Government Entrance Scholarship, University of Saskatchewan - 1963-64
University Undergraduate Scholarship, University of Saskatchewan - 1964-65
Pioneer Grain Co. Scholarship, University of Saskatchewan - 1965-66
Bowman Bros. Prize in Crop Science, University of Saskatchewan - 1965-66
Louis Ware Scholarship, University of Saskatchewan - 1966-67
Saskatchewan Institute of Agronomy, University of Saskatchewan - 1966-67
Top Student in Graduating Class - 1967
National Research Council Bursary, University of Saskatchewan - 1967-68
National Research Council Scholarship, University of Saskatchewan - 1968-69
National Research Council Scholarship, University of British Columbia - 1971-72
Medical Research Council Fellowship, University of Toronto - 1972-73
Norden Teacher of the Year Award - 1977-78
Saskatchewan Veterinary Medical Association Award - 1978
Distinguished Leaders in Health Care - 1978
WCVN Preclinical teacher award - 1980
Diamond Jubilee Award - Distinguished Graduates in Agriculture - 1986
Rotarian Wheel Award in Science - 1989
Centennial Lecturer - University of Toronto - 1989
Canadian Soc. Microbiology Award - 1990
Rotarian Wheel Award in Science and Technology - 1991
Peat Marwick, High Tech Entrepreneurial Award (Finalist) - 1991
Hungarian Academy of Science (Microbiology Society) Honorary Membership - 1991
Distinguished Lecturer - Colorado State University - 1991
American Association Veterinary Immunologist Award - 1992
Xerox Canada-Forum Award - 1993
University of Saskatchewan Distinguished Researcher Award - 1994
Emerging Science and Technology Award for Innovation and Excellence USA - 1995
Pfizer Prize in Animal Health - 1998
National Merit Award (Ottawa Life Sciences) - 1998
Fellow Royal Society of Canada - 1999
Bill Snowden Memorial Award (Australia) - 2000
Appointed Member - European Academy of Sciences - 2002
Industry Leadership Award - Canadian Animal Health Institute - 2003
Saskatchewan Order of Merit - 2004
Anne & Neil McArthur Research Award (McMaster University) - 2004
Appointed Member - Serbian Academy of Sciences - 2004

RECOGNITIONS

Great Minds of the 21st Century
1000 World Leaders of Scientific Influence
Follow the Leaders - Government of Canada - Canadian Innovation in Biotechnology - 2003
21st Century Award of Achievement (IBC)
Who's Who in America

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Who's Who in the World
Who's Who in the West
Who's Who in the 21st Century
2000 Outstanding Intellectuals in the 21st Century
International Directory of Distinguished Leadership
Five Thousand Personalities of the World
Canadian Who's Who
Who's Who in Veterinary Science and Medicine
International Scientist of the Year (2001, 2002)
2001 Man of the Year (American Biographical Institute)
Who's Who in Medicine and Health Care

TEACHING RECORD

1995-96

VT MC 898.3 - 20 hours tutorial

1994-95

VT MC 898.3 - 20 hours tutorial

1993-94

VT MC 333 - 11 hrs lecture

VT MC 899.6 - 30 hours tutorial

VT MC 898.3 - 30 hours tutorial

1992-93

VT MC 333 - 30 hrs lecture; 16 hrs laboratory

VT MC 899.6 - 15 hrs tutorial

VT MC 898.3 - 30 hrs tutorial

1991-92

VT MC 333 - 30 hrs lecture; 16 hrs laboratory

VT MC 899.6 - 15 hrs tutorial

VT MC 899.6 - 30 hrs tutorial

1990-91

VT MC 333 - 30 hrs lecture; 16 hrs laboratory

HMT 899.6 - 6 hrs lecture;

1989-90

VT MC 333 - 30 hours lecture; 16 hours laboratory

VT MC 833 - 20 hours lecture; 20 hours tutorial

1988-89

VT MC 333 - 30 hours lecture; 16 hours laboratory

VT MC 833 - 20 hours lecture; 20 hours tutorial

1987-88

VT MC 333 - 30 hours lecture; 16 hours laboratory

1986-87

VT MC 830 - 20 hours lecture; 10 hours tutorial

VT MC 333 - 30 hours lecture; 16 hours laboratory

VT MC 833 - 20 hours lecture; 20 hours tutorial

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1985-86
VT MC 830 - 20 hours lecture; 10 hours tutorial
VT MC 333 - 30 hours lecture; 16 hours laboratory

1984-85
VT MC 830 - 20 hours lecture; 10 hours tutorial
VT MC 333 - 30 hours lecture; 16 hours laboratory

1983-84
VT MC 833 - 6 hours lecture
VT MC 333 - 26 hours lecture; 16 hours laboratory
VT MC 830 - 20 hours lecture; 10 hours tutorial

1982-83
VT MC 333 - 26 hours lecture; 16 hours laboratory
VT MC 830 - 20 hours lecture; 10 hours tutorial

1981-82
VT MC 233 - Virology, 24 hours lectures; 18 hours laboratory
VT MC 830B - 20 contact hours
VT MC 833B - 6 hours lectures; 22 hours contact

1980-81
VT MC 233 - 24 hours lectures; 18 hours laboratory
VT MC 830B - 20 hours

1979-80
VT MC 833 - 70 hours
VT MC 831A - 70 hours
VT MC 830 - 48 hours
VT MC 233 - 48 hours

1978-79
VT MC 233 - Virology, 48 hours
VT MC 831A - 70 hours

1977-78
VT MC 130 - Introductory Microbiology, 2 hours
VT MC 233 - Virology, 38 hours
VT MC 833 - 78 hours

1976-77
VT MC 131 - Immunology, 32 hours
VT MC 233 - Virology, 38 hours
VT MC - Epizootiology, 2 hours
VT CL 370 - Correlative Medicine, 8 hours
VT MC 830 - 6 hours

1975-76
VT MC 130 - Introductory Microbiology, 2 hours
VT MC 131 - Immunology, 32 hours
VT MC 233 - Virology, 34 hours
VT CL 370 - Correlative Medicine, 8 hours
VT MC 836B - 20 hours

1974-75
VT MC 131 - Immunology, 32 hours

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VT MC 233 - Virology, 33 hours
 VT MC 831 - 43 hours
 VT MC 812 - Anatomy, 11 hours
 1973-74
 VT MC 131 - Immunology, 32 hours
 VT MC 130 - Introductory Microbiology, 32 hours
 VT MC 233 - Virology, 9 lectures and 34 hours laboratory
 VT An 812 - Anatomy, 11 hours
 VT MC 830 - 11 hours

Summer course in Tissue Culture - 10 hours

THESES SUPERVISED/RESEARCH TRAINING

Students Supervised: IN PROGRESS

H. Huang – PhD (defending 2004)	V. Kulshresthra – PhD	Candice Jackel - PhD
T. Whale - PhD	C. Tsang – PhD	Katie Herzog - PhD
I. Moshhynskyy – PhD (defending 2004)	J. van Kessel – MSc	Mike Dannabassis - PhD

Post-Doctoral Fellows: IN PROGRESS

L. Xing A. Nichani C. Zheng H. Yu

Post-Doctoral Fellows: COMPLETED

A. Grewal	M. Sabara	B. Harrach	A. Mena
S. van den Hurk	B. Blumenthal	M. Benko	X. Ioannou
M. Redmond	K. Ready	T. Roberts	R. Pontarollo
H. Bielefeldt-Ohmann	W. Kornikakis	S. Tikoo	X. Li
K. Ijaz	G. Hughes	S. Mittal	M. Shmulevitz
M. Sethi	D. Godson	M. Baca-Estrada	
X. Liang	D. Yoo	M. Morsey	
A. van Kessel	G. Cox	O. Yarosh	
B. Ngeleka	M. Jiang	Y. Li	
J.B. Lee	S. Gornis	S. Khattar	
Z. Papp	P.S. Reddy	R. Braun	
A. Zakhartchouk	Q. Liu	V. Gerds	
L. Zhang	R. Rankin	B. Lohr	
Y. Zhou	M. Baxi	Q. Wu	

Graduate Students: Thesis Completed

Manoj, S. PhD. Strategies to enhance the efficacy of DNA Vaccines. Thesis accepted 2003.

Kulshrestha, V. MSc. Molecular characterization of BAV-3 33k protein. Thesis accepted 2003.

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Li, X. PhD. Molecular characterization of early region 4 of porcine adenovirus type 3. Thesis accepted 2003.

Schneberger, D. MSc. Immunization parameters that influence the immune response in mice to a DNA vaccine. Thesis accepted 2003.

Stocki, S. PhD Identification of genomic differences between *Escherichia coli* strains pathogenic for poultry and *E. coli* K-12 M6 1655. Thesis accepted 2002.

Veerachato, G. MSc. *Streptococcus dysgalactiae* interactions with host cells and characterization of GAPC. Thesis accepted 2002.

Suradhat, S. PhD. Characterization of immune responses induced by plasmids encoding bovine rotavirus antigens in the murine model. Thesis accepted. 1999.

Raggo, C. PhD. The construction and characterization of bovine herpesvirus-1 expressing cytokines. Thesis accepted. 1999.

Lewis, P.J. PhD. Characterization and modulation of immune responses in mice to a DNA-based vaccine. Thesis accepted. 1998.

Idamakanti, N. M.Sc. Molecular characterization of early region-3 of bovine adenovirus-3. Thesis accepted. 1998.

Khattar, S. PhD. Identification and characterization of bovine herpesvirus-1 minor glycoproteins L, H and M. Thesis accepted. 1997.

Papp, Z. PhD Mucosal and systemic immune responses induced by immunization of cotton rats with recombinant adenoviruses. Thesis accepted. 1997.

Li, Y. PhD. Structural and functional study of bovine herpesvirus-1 glycoprotein B in the interaction with Mardin Darby bovine kidney cells. Thesis accepted. 1996.

Jiang, M. PhD. Molecular characterization of *Streptococcus uberis* CAMP factor, lactoferrin binding protein and their upstream genes. Thesis accepted. 1996

Lee, J.B. Ph.D. Molecular and immunobiological characterization of VP8, N-terminal trypsin cleavage product of bovine rotavirus VP4. Thesis accepted. 1996.

Pontarollo, R.A. Ph.D. Iron acquisition and characterization of bacteriophage-like genes of *Haemophilus somnus*. Thesis accepted. 1995.

Klassen, M. Ph.D. Bovine parainfluenza virus type 3 F and HN glycoproteins: Molecular biology and immunobiology in *Sigmodon hispidus* cotton rats. Thesis accepted. 1995.

Warren, L. M.Sc. The effects of bovine herpesvirus-1 on pulmonary endothelial cell function.

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Thesis accepted. 1994.

Cox, G. Ph.D. Immunobiology of bovine coronavirus. Thesis accepted. 1994

Schuh, J. Ph.D. Immunopathogenesis of acute experimental bovine herpesvirus-1 infection in neonatal versus weanling calves. Thesis accepted. 1994

Popowych, Y. M.Sc. An assessment of *in vitro* assays used to detect BHV-1 specific CMI responses. Thesis accepted. 1993.

Pfeifer, C. M.Sc. Interactions of *Haemophilus somnus* with bovine leukocytes. Thesis accepted. 1992.

Tikoo, S., Ph.D. Characterization of bovine herpesvirus-1 glycoprotein gIV. Thesis accepted. 1992.

Zhao, D. M.Sc. Molecular characterization and humoral immunity of bovine rotavirus VP4, VP6 and VP7. Thesis accepted. 1992.

Godson, D., Ph.D. Non-MHC restricted cytotoxicity mediated by bovine intestinal intraepithelial leukocytes against bovine coronavirus infected target cells. Thesis accepted. 1990.

Hutchings, D., Ph.D. Antigen - Non-specific and specific effects of bovine herpesvirus-1 on lymphocyte function. Thesis accepted. 1990.

Fitzpatrick, D., Ph.D. Immunobiology of bovine herpesvirus-1 glycoproteins I and III. Thesis accepted. 1989.

N. Mohammed. Ph.D. Isolation and characterization of bovine intestinal leukocytes. Thesis accepted. 1989.

Griebel, P.J., Ph.D. Changes in bovine peripheral blood leukocyte function and subpopulation dynamics following a primary BHV-1 infection. Thesis accepted. 1988.

T. Syafriati, M.Sc. Production of monoclonal antibodies to bovine herpesvirus-2. Thesis accepted. 1987.

D. Dereg, Ph.D. Characterization of bovine coronavirus glycoproteins. Thesis accepted. 1987.

C. Dubuc, M.V.Sc. Studies on diagnosis of bovine respiratory syncytial virus infections. Thesis accepted. 1985.

S. van den Hurk, Ph.D. Characterization of BHV-1 glycoproteins. Thesis accepted. 1984.

M. Sabara, Ph.D. Characterization of Bovine Rotaviruses. Thesis accepted. 1982.

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G.A. Weinmaster, M.Sc. Bovine Herpesvirus-1 Gene Products. Thesis accepted. 1981.

M.M. Carpio, Ph.D. Bovine Rotavirus Cell Interactions. Thesis accepted. 1980.

C.K. Ho, Ph.D. Immune Mechanisms Against Canine Distemper. Thesis accepted. 1979.

K.A. Mohammed, Ph.D. Rotavirus of Neonatal Calf Diarrhea. Thesis accepted. 1977.

PATENTS

Issued:

1. US Patent No. 5,672,350. "Recombinant Bovine Coronavirus E2 and E3 Polypeptides and Vaccines".
2. European Patent No. 0,527,724. "Compositions and Treatments for Pneumoniae in Animals".
3. European Patent No. 0,652,947. "Assembled Viral Particles and their Used in a Vaccine to Rotaviral Disease".
4. US Patent No. 5,585,264. "Nucleotide Sequences Encoding Recombinant Bovine Herpesvirus Type 2 GI, GIII and GIV Polypeptides."
5. US Patent No. 5,476,657. "Pasteurella Leukotoxin Compositions and Uses Thereof."
6. Canadian Patent No. 2,014,033 for "Composition and Treatments for Pneumonia in Animals".
7. US Patent No. 5,151,267 for "Bovine Herpesvirus Type 1 Polypeptides and Vaccines".
8. US Patent No. 5,369,026 for "DNA Encoding Bovine Coronavirus Polypeptide E2 and E3".
9. US Patent No. 5,124,145 for "Method for the Prevention and Treatment of Bovine Mastitis".
10. US Patent No. 5,234,684 for "Method for the Prevention and Treatment of Bovine Mastitis".
11. Canadian Patent No. 1,338,069 for "Bovine Herpesvirus Type 1 Polypeptides and Vaccines".
12. US Patent No. 5,820,868 for "Recombinant Protein Production in Bovine Adenovirus Expression Vector System."
13. US Patent No. 5,879,895 for "Recombinant Bovine Herpesvirus Type 1 Polypeptides and Immunoassays."
14. US Patent No. 5,858,989 for "Vaccines Comprising Nucleotide Sequences Encoding Bovine Herpesvirus Type 1 GI, GIII and GIV."
15. European Patent No. EP,0,618,814,B "Recombinant Bovine Herpesvirus Type 1 Polypeptides and Vaccines."
16. US Patent No. 6,001,591 for "Recombinant Bovine Adenoviruses".
17. US Patent No. 6,086,890 for "Bovine Adenovirus Expression Vector System".
18. US Patent No. 6,319,716 B1 for "Bovine Adenovirus Type 3 Genome and Vector Systems Derived Therefrom"
19. US Patent No. 6,379,944 B1 for "Mammalian Cell Lines Expressing Bovine Adenovirus Functions"
20. US Patent No. 6,492,343 B1 for "Porcine adenovirus type 3 genome".

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21. Australia Patent No. 766670 for "Porcine adenovirus type-3 genome"
22. US Patent No. 6,794,163 for "Methods to culture circovirus"
23. US Patent No. 6,849,446 for "Modified bovine adenovirus having altered tropism"

Pending:

1. US Patent Application for "CAMP Factor Gene of *Streptococcus Uberis*".
2. US Patent Application for "Recombinant Protein Production in Bovine Adenovirus Expression Vector System".
3. US Patent Application for "Recombinant Bovine Herpesvirus Type 1 Polypeptides and Vaccines".
4. US Patent Application for "A Novel Porcine Circovirus (PCV) Isolated From Postweaning Multisystemic Wasting Syndrome (PMWS)".
5. US Patent Application for "Bovine Adenovirus Type 3 Genome".
6. US Patent Application for "Recombinant Protein Production In Bovine Adenovirus Expression Vector System".
7. US Patent Application for "Recombinant Protein Production in a Bovine E1 Gene Deleted Vector System".
8. US Patent Application for "Recombinant Protein Production In Bovine E3 Gene Deleted Expression Vector System".
9. US Patent Application for "Yersinia Pestis Vaccine Composition and Method of Administration."
10. US Patent Application for "Porcine Adenovirus Vectored Vaccines."
11. US Patent Application for "Gene Therapy with Bovine Adenoviruses."
12. US Patent Application for "Recombinant Subunit Protein from Porcine Parvovirus Produced in Plants."
13. US Patent Application for "In utero Oral Nucleic Acid Immunization."
14. US Patent Application for "Methods to Culture Circovirus".
15. US Patent Application for "CpG Formulations and Related Methods"
16. US Patent Application for "Methods and Compositions for Promoting Growth and Innate Immunity in Young Animals."
17. US Patent Application for "Toll-Like Receptor 9 (TLR9) From Various Mammalian Species."
18. US Patent Application for "Post-weaning multisystem wasting syndrome virus from pigs."
- 19.

BOOKS, CHAPTERS IN BOOKS, EXPOSITORY AND REVIEW ARTICLES

Wilson, Aich, P., Jalal, S., Hodgson, P., Potter, A., Babiuk, L.A., and Griebel, P.J. 2005. Molecular analyses of disease pathogenesis: Application of bovine micro-arrays. Review: Veterinary Immunology Immunopathology. In press.

van Drunen Little-van den Hurk, S., S. Babiuk, and Babiuk, L.A. 2005. Needle-free delivery of veterinary DNA vaccines. DNA Vaccines. Editor Shen, Brandsma, and Saltsman. In press.

Babiuk, S., van Drunen Little-van den Hurk, S., and Babiuk, L.A. 2005. Delivery of DNA vaccines using electroporation. DNA Vaccines. Editor Shen, Brandsma, and Saltsman. In press.

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Skowronski, D.M., Astell, C., Brunham, R.C., Low, D.E., Petric, M., Roper, R.L., Talbot, P.J., Tam, T., and Babiuk, L.A. 2005. Severe acute respiratory syndrome (SARS): A year in review. *Annu. Rev. Med.* 56: 357-381.

Babiuk, L.A., van Drunen Littel-van den Hurk, S., and Tikoo, S.K. 2004. Infectious Bovine Rhinotracheitis/Infectious Pustular Vulvovaginitis. In: *Infectious Diseases of Livestock*. Ed. Coster and R.C. Tuslin. Oxford University Press. Chapter 79. pp. 875-886.

Babiuk, L.A., Babiuk, S.L., and B.A. Alsopp. 2004. Vaccination: An effective approach to reducing suffering and disease due to infectious disease. In: *Infectious Diseases of Livestock*. Ed. J.A.W. Coster and R.C. Tuslin. Oxford University Press. Chapter 11. pp. 239-247.

Manoj, S., Babiuk, L.A., and van Drunen Littel-van den Hurk, S. 2004. Approaches for enhancing the efficacy of DNA vaccines. *Crit. Rev. Clin. Lab. Sci.* 41: 1-39.

Gerdt, V., Tsang, C., Griebel, P.J., and Babiuk, L.A. 2004. DNA vaccination of the fetus: a new approach to induce protective immunity in the newborn. *Vaccine*. 22: 1717-1727.

van Drunen Littel-van den Hurk, S., Babiuk, S.L., and Babiuk, L.A. 2004. Strategies for Improved Formulation and Delivery of DNA Vaccines to Veterinary Target Species. *Immunological Reviews*. 199: 113-125.

Babiuk, L.A., Pontarollo, R., Babiuk, S., Loehr, B., van Drunen Little-van den Hurk, S. 2003. Induction of immune responses by DNA vaccines in large animals. *Vaccine*. 21: 649-658.

Mutwiri, G., Pontarollo, R., Babiuk, S., Griebel, P., van Drunen Little-van den Hurk, S., Mena, A., Tsang, C., Alcon, V., Nichani, A., Ioannou, X., Gomis, S., Townsend, H., Hecker, R., Potter, A., and Babiuk, L.A. 2003. Biological activity of immunostimulatory CpG DNA motifs in domestic animals. *Vet. Immun. and Immunopath.* 91: 89-103.

Babiuk, L.A., Gomis, S., and Hecker, R. 2003. Molecular Approaches to Disease Control. *Poultry Science*. 82: 870-875.

Babiuk, L.A. 2002. 3rd World Congress on Vaccines and Immunization – Meeting Highlights. *Expert Opinion, Biol. Ther.* 2: 665-669.

Babiuk, L.A. 2002. Immunization of Cattle: Current and Future Prospects. In: *Recent Developments and Perspectives in Bovine Medicine*. Ed. M. Kaske, H. Scholz, and M. Holtersshinken. Klinik für Rinderkrankheiten, Hannover, Germany. pp. 76-85.

Babiuk, L.A., Babiuk, S.L., and Baca-Estrada, M.E. 2002. Novel Vaccine Strategies. *Advances in Virus Research*. 58: 29-80.

Babiuk, L.A. 2002. Vaccination: A Management Tool in Veterinary Medicine. *The Veterinary Journal*. 164: 188-201.

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Potter, A. and Babiuk, L.A. 2001. New approaches for antigen discovery, production, and delivery: Vaccines for veterinary and human use. *Current Drug Targets: Infectious Disorders*. Vol. 1 259-272.

Babiuk, L.A. 2000. Vaccination: Present realities and future prospects. *Microbiology Australia*. 21: 16-19.

Babiuk, L.A., van Drunen Littel-van den Hurk, S., Loehr, B., and Uwiera, R. 2000. Veterinary Applications of DNA Vaccines. In: *Developments and Clinical Progress of DNA Vaccines*. Ed. Brown, F., Cichutek, K., and Robertson, J. 104: 71-79

Babiuk, L.A., Babiuk, S.L., Loehr, B., and van Drunen Littel-van den Hurk, S. 2000. Nucleic acid vaccines: Research tools or commercial reality. *Vet. Immunol. Immunopath.* 76: 1-23.

Babiuk, S.L., Baca-Estrada, M.E., Babiuk, L.A., Ewen, C., Foldvari, M. 2000. Cutaneous vaccination: The skin as an immunologically active tissue and the challenge of antigen delivery. *J. Controlled Release*. 66: 199-214.

van Drunen Littel-van den Hurk, S., Gerdts, V., Loehr, B., Pontarollo, R., Rankin, R., Uwiera, R., and Babiuk, L.A. 2000. Recent Advances in the Use of DNA Vaccines for the Treatment of Diseases of Farmed Animals. *Adv. Drug Delivery Rev.* 43: 13-28.

Babiuk, L.A., van Drunen Littel-van den Hurk, S., and Babiuk, L.A. 1999. Immunization of Animals: From DNA to the Dinnerplate. *Vet. Immunol. Immunopath.* 72: 189-202.

Towers, G.H.N., McCutcheon, A., Saxena, G., Matsuura, H., Page, J., Farmers, S., Gibbons, E. Roberts, T.E., Babiuk, L.A., Thorson, I.M., Stokes, R.W., Sokol, P., Klingemann, H., and Hancock, R.E.W. 1999. Antimicrobial activities of phytochemicals from British Columbian medicinal plants. In: *Chemistry, Biological, and Pharmacological Properties of Medicinal Plants from the Americas*. Ed. Hostettmann, K., Gupta, M.P., and Marston, A. Harwood Academic Publ. Switzerland. pp. 125-142.

Babiuk, L.A. 1999. Vaccination of Animals. In: *Embryonic Encyclopedia of Life Sciences*. Nature Publishing Group. London, UK. www.els.net

Lewis, P.J. and Babiuk, L.A. 1999. DNA Vaccines: A Review. *Advances in Virus Research*. 94: 129-188.

Babiuk, L.A. 1999. Broadening the Approaches to Developing More Effective Vaccines. *Vaccine*. 17: 1587-1595.

Babiuk, L.A., Lewis, J., van Drunen Littel-van den Hurk, S. and Braun, R. 1999. DNA Immunization: Present and Future. *Advances in Veterinary Science*. 41: 163-179.

van Drunen Littel-van den Hurk, S., Braun, R.P. and Babiuk, L.A. 1999. Veterinary DNA

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Vaccines. In: DNA Vaccines: Methods and Protocols. Ed. Lowrie, D.B. and Whalen, R. Humana Press Inc. p. 79-94.

van den Hurk, S. and Babiuk, L.A. 1999. Therapy/Disease Prevention. In: Agroimmunochemistry Current Applications, CRC Press, Ed. J.C. Hall and S.R. Webb.

Godson, D.L., Baca-Estrada, M.E. and Babiuk, L.A. 1997. Applications of Bovine Cytokines. In: Cytokines in Veterinary Medicine. Ed. Schijns, V.E.C. and Horzink, M.C. CAB International. pg. 3-13.

Baca-Estrada, M.E., Babiuk, L.A., and Yoo, D. 1997. Hemagglutinin-Esterase glycoprotein gene of bovine coronavirus delivered by adenovirus vector induces mucosal immunity in cotton rats. In Mechanism in pathogenesis of enteric diseases. In: Advances in Experimental Medicine and Biology. Vol. 412: 431-433. Plenum Press, Ed. P. Paul, D. Francis and D. Benfield.

Yoo, D., Lee, J.B., Harland, R., Gibbons, E., Elazhury, Y., and Babiuk, L.A. 1997. Maternal immunization of pregnant cattle with recombinant VP8* protein of bovine rotavirus elicits neutralizing antibody to multiple serotypes. In Mechanism in pathogenesis of enteric diseases. In Advances in Experimental Medicine and Biology. Vol. 412: 405-411. Plenum Press, Ed. P. Paul, D. Francis, and D. Benfield.

Babiuk, L.A., Lewis, P.J., van Drunen Littel-van den Hurk, S., Tikoo, S.K. and Liang, X. 1997. Nucleic Acid Vaccines: Veterinary applications. In Current Topics in Microbiology and Immunology. Vol 222. pp. 91-107.

Horzinek, M.C., Desmettre, P., Denis, M., and Babiuk, L.A. 1997. General Description of Vaccines. In: Veterinary Vaccinology. Ed. Pastoret, P.P., Blancou, J., Vannier, P. and Verschueren, C. Elseviers Press. Chapter 6, pp. 131-148.

Van Oirschot, J., Strube, W., Babiuk, L.A. and Melen, R. 1997. Categories of Vaccine Mechanisms of Action: Advantages and Disadvantages. In: Veterinary Vaccinology. Ed. Pastoret, P.P., Blancou, J., Vannier, P. and Verschueren, C. Elseviers Press. Chapter 12, pp 257-278.

Babiuk, L.A., Lewis, P.J., Suradhat, S., van Drunen Littel-van den Hurk, S., Baca-Estrada, M., Tikoo, S. and Yoo, D. 1996. Polynucleotide Immunization: A novel approach to vaccination. In: Molecular Approaches to Control of Infectious Diseases: Vaccines 96, Cold Spring Harbor Laboratory Press. Editor: Brown, F., Norrby, E., Burton, D. and Mekalanos, J. pp. 33-38.

Babiuk, L.A. and Rouse, B.T. 1996. Herpesvirus vaccines. Advanced Drug Delivery Reviews. 21: 63-76

Yoo, D., Parker, M., Cox, G. and Babiuk, L.A. 1995. Zinc binding of the cysteine rich domain encoded in the open reading frame 1B of the RNA polymerase gene of coronavirus. In Corona and Related Viruses. Ed. Talbot, P.S. and Levy, G.A. Plenum Press, N.Y., pp. 437-442.

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Babiuk, L.A., Lewis, P.J., Cox, G. van Drunen Littel-van den Hurk, S., Baca-Estrada, M. and Tikoo, S.K. 1995. DNA immunization with bovine herpesvirus-1 genes. New York Academy of Sciences. pp. 50-66.

Babiuk, L.A. 1995. New approaches to the development of veterinary vaccines. Proceedings XXV World Veterinary Congress. 171-182.

Babiuk, L.A. 1995. Control of respiratory disorders in cattle - medical prevention. Proceedings XXV World Veterinary Congress. 251-260.

Babiuk, L.A., and Yoo, D. 1995. Trends in vaccination: Infectious agents and ectoparasites. In: Recombinant vaccines for the control of cattle ticks. Ed. J. de la Fuente, Elfos, Scientiae, Habana, pp. 47-70.

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Hutchings, D., Lawman, M., Campos, M. and Babiuk, L.A. 1987. Inhibition of IL-2 induced proliferation of peripheral blood mononuclear leukocytes (PBML) by UV irradiated BHV-1 infected fibroblasts. 68th Conf. of Res. Workers in Animal Dis. Chicago, Nov. Abst. No. 277.

Campos, M., Bielefeldt Ohmann, H., Hutchings, D., Gilchrist, J., Babiuk, L.A. and Lawman, M.J. 1987. The role of interferon gamma on the cytotoxicity of bovine herpesvirus type-1 (BHV-1) infected cells mediated by peripheral blood leukocytes from BHV-1 immune cattle. 68th Conf. of Res. Workers in Animal Dis. Chicago, Nov. Abst. No. 275.

Griebel, P., Qualtiere, L., Davis, W., Lawman, M. and Babiuk, L.A. 1987. Bovine peripheral blood leukocytes subpopulation dynamics following a primary bovine herpesvirus (BHV-1) infection. 68th Conf. of Res. Workers in Animal Dis. Chicago, Nov. Abst. No. 274.

Godson, D.L., Campos, M., Babiuk, L.A. 1987. Non-MHC-restricted cytotoxicity to bovine coronavirus-infected cells mediated by cells from various anatomic locations. 68th Conf. of Res. Workers in Animal Dis. Chicago, Nov. Abst. No. 273.

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van Drunen Littel-van den Hurk, S., Zamb, T., Hughes, G. and Babiuk, L.A. 1987. Characterization of vaccinia recombinants expressing bovine herpesvirus-1 (BHV-1) glycoproteins gI and gIII. Submitted to International Congress of Virology, Edmonton, AB, Canada. August.

Campos, M., Bielefeldt Ohmann, H., Babiuk, L.A. and Lawman, M.J.P. 1987. Studies on the *in vitro* biological activities of recombinant bovine tumor necrosis factor (rBoTNF). I. Antiviral efficacy of rBoTNF in synergy with recombinant bovine interferon gamma rBoIFN-gamma, Conference on Tumor Necrosis Factor and Related Cytotoxins. Heidelberg, FRG. September, 1987.

Lawman, M.J.P., Fitzpatrick, D., Parker, M., Hughes, G. and Babiuk, L.A. 1987. Development of a mouse model system to study T_H response to BHV-1. 68th Conf. of Res. Workers in Animal Dis. Chicago, Nov. Abst. No. 312.

Hughes, G., van Drunen Littel-van den Hurk, S. and Babiuk, L.A. 1987. Topology of bovine herpesvirus 1 (BHV-1) glycoproteins gIV. Submitted VIIth International Congress of Virology, Edmonton, AB Canada. August.

Babiuk, L.A. 1987. Animal Vaccine. 37th Annual Meeting of CSM. Saskatoon, Abstract No. CPS 1.

Babiuk, L.A. 1987. Treatment and Prevention of Respiratory Disease by Interferon. WCVN June Conference. Saskatoon, Saskatchewan.

Babiuk, L.A. 1987. Guidelines for working with Infectious Agents. 34th National Conference on Campus Safety. July, Edmonton, Alberta.

Babiuk, L.A. 1987. Potential for using immunomodulatory agents in viral bacterial infection. Chicago.

Babiuk, L.A. 1987. Special characteristics of bovine and human respiratory syncytial viruses. SVMA Mid-Winter Convention, Saskatoon.

Babiuk, L.A., van den Hurk, S. and Mechor, G. 1986. Application of monoclonal antibodies for identification and purification of important BHV-1 viral antigens. Vth International Conference of Comparative Virology.

Babiuk, L.A., Lawman, M.J.P., Gifford, G.A. and Bielefeldt Ohmann, H. 1986. Interferon: An application of recombinant DNA technology in bovine respiratory disease. Proceedings of American Pharmacologist Society Annual Meeting. Lake of the Ozark, USA

Bielefeldt Ohmann, H. and Babiuk, L.A. 1986. Alteration of bovine alveolar macrophage functions by *in vivo* and *in vitro* treatment with recombinant interferons. Alpha-1 and gamma. 1st International Veterinary Immunology Congress.

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Frenchick, P.J., Sabara, M.I., Ijaz, M.K. and Babiuk, L.A. 1986. Immune response to synthetic peptide vaccines. Vth International Conference of Comparative Virology, Alberta, Canada. May, 1986.

Hughes, G., van Drunen Littel-van den Hurk, S. and Babiuk, L.A. 1986. Monoclonal antibodies specific for bovine herpesvirus-1 (BHV-1) glycoproteins gIV. Abstracts for Eleventh International Herpesvirus Workshop, Leeds, U.K.

Sabara, M.I., Ijaz, M.K. and Babiuk, L.A. 1986. Monoclonal antibodies as probes for the identification of biologically important regions on rotavirus proteins and their use in preventive treatment of enteric infections. Vth International Conference of Comparative Virology, Alberta, Canada. May.

Sabara, M.I., Frenchick, P.J. and Babiuk, L.A. 1986. The ability of synthetic peptides corresponding to regions on the 84k protein to mimic authentic sites. Symposium for Double-Stranded RNA Viruses. Oxford, England.

van Drunen Littel-van den Hurk, S., L'Italien, J., Lawman, M.J.P., Gifford, G.A., Zamb, T., Hughes, G. and Babiuk, L.A. 1986. Protection of cattle from lethal bovine herpesvirus-1 (BHV-1)/*P. haemolytica* (*P. haem.*) infection by immunization with affinity purified-BHV-1 glycoproteins. Eleventh International Herpesvirus Workshop, Leeds, U.K.

Ijaz, M.K., Sabara, M.I., Frenchick, P.J. and Babiuk, L.A. 1986. Passive protection of rotavirus-induced diarrhea in neonatal mice. 6th International Congress of Immunology, Toronto, Canada. July.

Babiuk, L.A. 1986. Application of biotechnology to animal health. Farming for the Future Conference, March, Edmonton, Alberta.

Babiuk, L.A. 1986. Interferon: An application of recombinant DNA technology in bovine respiratory disease, Missouri.

Deregt, D., Sabara, M. and Babiuk, L.A. 1986. Monoclonal antibodies to two bovine coronavirus glycoproteins neutralize virus infectivity. 3rd International Coronavirus Symposium, September. Asilomar, California.

Rousseaux, C.G., Mechor, G.D., Petri, L., Babiuk, L.A. and Radostitis, O.M. 1986. The protective effect of bovine herpesvirus-1 (BHV-1) colostral antibody against fatal neonatal BHV-1 infection. 37th Annual Meeting. Am. College. Vet. Path. Page 37.

Sabara, M.I., Ready, K.F.M., Frenchick, P.J. and Babiuk, L.A. Characterization of the nucleocapsid protein of ovine rotavirus. Symposium for Double-Stranded RNA Viruses. Oxford, England.

Ijaz, M.K., Sabara, M.I., Frenchick, P.J. and Babiuk, L.A. 1986. Passive protection of rotavirus-induced diarrhea in neonatal mice. 8th Int. Cong. Immunol. Toronto, Canada. July.

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Babiuk, L.A. 1985. Mechanisms of pathogenesis of bovine herpesvirus-1. 1st BIOP Symposium. Abst. No. 5.

Anderson, K., Czarniecki, C., McCracken, J., Bielefeldt Ohmann, H. and Babiuk, L.A. 1985. The potential use of bovine interferon in bovine respiratory disease. 4th Comp. Resp. Dis. Cont. p. 39-46.

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Babiuk, L.A. 1985. Mechanisms of viral induced immunomodulation. IVth Int. Conf. on Impact Viral Diseases on the Development of African and Middle East Countries. Morocco. Abst. No. P3-7

Babiuk, L.A. 1985. Monoclonal antibodies in virology. IVth Int. Conf. on Impact of Viral Diseases on the Development of African and Middle East Countries. Morocco. Abst. No. P3-10.

Bielefeldt Ohmann, H. and Babiuk, L.A. 1985. Alterations of neutrophil functions after *in vivo* and *in vitro* exposure to recombinant bovine interferon or . J. Leukocyte Biology, 38: 165.

Bielefeldt Ohmann, H. and Babiuk, L.A. 1984. *In vitro* and systemic effects of recombinant bovine interferons on natural cell-mediated cytotoxicity in healthy and in bovine herpesvirus-1 infected cattle. J. Leuk. Biol. 36: 451.

Babiuk, L.A. 1984. Viral bacterial synergistic interactions in respiratory diseases. Can. Fed. Biol. Soc. Annual Meeting Abst. No.

Bielefeldt Ohmann, H. and Babiuk, L.A. 1984. *In vitro* and systemic effects of recombinant bovine interferons on natural cell-mediated cytotoxicity in healthy and herpesvirus-infected calves. Int. Workshop on Human Monocyte Cytotoxicity. Abst. No. 13.

Sabara, M., Gilchrist, J.E., Babiuk, L.A. and Hudson, J.R. 1984. Characterization of the major bovine rotavirus glycoprotein. VIth Int. Congress Virol. Abst. No. p. 9-12.

van Drunen Littel-van den Hurk, S., van den Hurk, J.V. and Babiuk, L.A. 1984. Antigenic and immunogenic characteristics of bovine herpesvirus type-1 (BHV-1) glycoproteins. International Herpesvirus Workshop. Seattle, WA. p. 270.

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Deregt, D., Crouch, C.F. Sabara, M., Gilchrist, J.E., Babiuk, L.A. and Hudson, G.R. 1984.

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Characterization of bovine coronavirus (BCV) glycoproteins using monoclonal antibodies. VIth Int. Cong. Virol., Sendai, Japan. Abst. No. W22-3.

Deregt, D., Crouch, C.F., Sabara, M., Gilchrist, J.E., Babiuk, L.A. and Hudson, G.R. 1983. Preliminary studies of a bovine coronavirus (BCV) antigen responsible for neutralization. Proc. 4th Int. Symposium on Neonatal Diarrhea. Veterinary Infectious Disease Organization, Saskatoon, Saskatchewan. pp. 117-133.

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van Drunen Littel-van den Hurk, S., van den Hurk, J.V., Misra, V. and Babiuk, L.A. 1983. Monoclonal antibodies, specific for bovine herpesvirus type 1 glycoproteins. International Herpesvirus Workshop, Oxford, England. p. 274.

Babiuk, L.A. and Acres, S.D. 1982. Animal Viral Induced Gastroenteritis: Problems in Diagnosis and Control IVth Int. Conf. on Comp. Viral. p 4-4.

Sabara, M. and Babiuk, L.A. 1982. The Significance of Rotavirus Electrophoretic Heterogeneity Within Individual Bovine Rotavirus Isolates. Double Stranded RNA Virus Conf.

Filion, L.G., McGuire, R.L. and Babiuk, L.A. 1982. The Suppression Effect of BHV-1 on the Specific and non-specific Immune Response of Calves. CRWAD Abstract No. 189.

Misra, V. and Babiuk, L.A. 1982. Characterization of a Herpesvirus Induced "Early" Glycoprotein. CSH Abstract No. 108.

Misra, V. and Babiuk, L.A. 1982. Bromovinyl Deoxyuridine (BVdU) Inhibits Glycosylation of Herpesvirus Glycoproteins. CSH Abstract No. 170.

Ayisi, N.K., Babiuk, L.A. and Gupta, V.S. 1982. Drug resistance to antiviral drugs - *In vitro* studies with Herpes Simplex. ASM Abstract No. 558.

Nkuuhe, J.R., Manns, J.G., Bristol, F. and Babiuk, L.A. 1981. Pyometra in the Cow: High levels of prostaglandin (PG) F and PGE but with a Retained Corpus Luteum. American Society of Animal Science Abstract No.

McGuire, R.L. and Babiuk, L.A. 1981. Culture Characteristics of Bovine Alveolar Macrophages. Canadian Federation of Biology Society Abstract No. 510.

McGuire, R.L., Branes, L.V. and Babiuk, L.A. 1981. The Effect of *Pasteurella multocida* Membrane Fractions on Bovine Alveolar Macrophages. Canadian Society of Microbiology Abstract No. D13p.

Branes, L.V. and Babiuk, L.A. 1981. Protection Against Pasteurellosis induced by

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Immunization with Cell Envelope Antigens of *Pasteurella multocida*. Canadian Society of Microbiology Abstract No. D25.

Branes, L.V. and Babiuk, L.A. 1981. Isolation and Characterization of Outer Membranes from Various Pathogenic Strains of *Pasteurella multocida*. Canadian Federation of Biology Society Abstract No. 20.

Babiuk, L.A., Blumenthal, R.M. and Misra, V. 1980. Correlative Analysis of Herpesviruses by Two-Dimensional Electrophoresis of Proteins and Restriction Patterns of DNA. ICN-UCLA Winter Conference Abstract No. 724.

Misra, V. and Babiuk, L.A. 1980. Possible Mechanisms of Rotavirus Persistence. INC-UCLA Winter Conference Abstract No. 779.

Babiuk, L.A. 1980. Role of Rotaviruses in Diarrhea of Mammals and Methods of Rapid Diagnosis. Second International Conference on the Impact of Viral Diseases on the Development of African and Middle East Countries.

Misra, V., Blumenthal, R.M. and Babiuk, L.A. 1980. Correlative Analysis of Herpesvirus by Two Dimensional Electrophoresis of Proteins and Restriction Patterns of DNA. International Conference on Human Herpesviruses Abstract No. G05.

Babiuk, L.A. 1980. Role of Rotavirus in Diarrhea of Mammals and Methods of Rapid Diagnosis. Conference on World Development, Kenya.

Grewal, A.S., Rouse, B.T. and Babiuk, L.A. 1979. Destruction of Herpesvirus Infected Cells by Neutrophils and Complement. Cold Spring Harbor Symposium, August.

Babiuk, L.A. 1979. Rotavirus Persistency *in vitro*. Rotavirus Meeting, September 2-7, Paris, France.

Babiuk, L.A. and Rouse, B.T. 1979. Immune Control of Latency. Canadian Journal of Microbiology, 25: 267-274.

Monette, J.P.L., Carpio, M.M., Kapitany, R.A. and Babiuk, L.A. 1979. Polypeptide Analysis of Bovine Rotavirus. Proceedings of the Second International Symposium on Neonatal Diarrhea, 249-262.

Carpio, M.M. and Babiuk, L.A. 1979. Ultrastructural Changes During Calf-Rotavirus Replication in BSC-1 Monkey Kidney Cells in Culture. Proceedings of the Second International Symposium on Neonatal Diarrhea, 237-248.

Spence, L., Fauvel, M., Petro, R., Gillani, A. and Babiuk, L.A. 1979. A Preliminary Study of Antigenic Relationships Among Isolates of Bovine Rotaviruses. Proceedings Second International Symposium Neonatal Diarrhea, 263-272.

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Ayisi, N.K., Gupta, V.S., Taneja, A.K., Meldrum, J.B. and Babiuk, L.A. 1979. Canadian Federation of Biological Society, No. 129, Vancouver, B.C.

Hayes, M.A., Russell, R.G. and Babiuk, L.A. 1979. Parvoviral Myocarditis in Dogs. Canadian Congress of Laboratory Medicine, June.

Acres, S.D. and Babiuk, L.A. 1978. Studies on Rotavirus Antibody in Bovine Serum and Lactal Secretions Using a Radioimmunoassay, March, Bethesda, Maryland.

Carpio, M. and Babiuk, L.A. 1978. Ultrastructural Changes in Rotavirus Infected Cultures. Canadian Veterinary Medical Association Meeting, Regina, Saskatchewan.

Warenycia, M. and Babiuk, L.A. 1978. HSV-1 Latency in Neuronal Cultures: *In vitro* Evidence for the Static State Hypothesis? Canadian Society of Microbiology Meeting, Montreal, Quebec.

Babiuk, L.A. 1978. Immune Control of Latency. Canadian Society of Microbiology Symposium, June, Montreal, Quebec.

Rouse, B.T. and Babiuk, L.A. 1978. Neutrophils in Antiviral Immunity: Inhibition of Virus Replication by a Mediator Produced by Bovine Neutrophils. American Society of Immunology Meeting, June, Atlanta, Georgia.

Acres, S.D., Babiuk, L.A. and Rouse, B.T. 1977. Micro-radioimmunoassay for Antibodies to Bovine Rotaviruses. Canadian Federation of Biology Society Abstract No. 245.

Grewal, A.S., Rouse, B.T. and Babiuk, L.A. 1977. Enhancement of Antibody Dependent Cell Cytotoxicity of Herpesvirus Infected Cells by Complement. Canadian Federation of Biology Society Abstract No. 241.

Ho, C.K., Babiuk, L.A. and Rouse, B.T. 1977. Lack of Genetic Restriction in Canine Antiviral Cytotoxicity of Herpesvirus Infected Cells by Complement. Canadian Federation of Biology Society Abstract No. 240.

Babiuk, L.A. and Acres, S.D. 1977. Radioimmunoassay for Rotaviruses. International Congress on Reoviruses, Guelph, Ontario.

Fauvel, M., Spence, L., Babiuk, L.A. and Petro, R. 1977. Hemagglutination and Hemagglutination Inhibition Studies with Neonatal Calf Diarrhea. American Society of Microbiologists Abstract no. RT30.

Rouse, B.T. and Babiuk, L.A. 1976. Antibody Dependent Cell Cytotoxicity of IBR Infected Cells by Neutrophils. 57th Conference on Animal Diseases.

Babiuk, L.A. and Rouse, B.T. 1976. Enhancement of Immunological Activity by Bovine Type II Interferon Implications in Recovery from Herpesviruses. 57th Conference of Animal

Apr-05

Diseases.

Rouse, B.T., Babiuk, L.A., Wardley, R.C. and Grewal, A.S. 1976. Role of Neutrophils in Antiviral Defense. Canadian Federation of Biology Society Abstract No. 226.

Babiuk, L.A. and Rouse, B.T. 1976. Immune Interferon Production by Lymphoid Cells: Role in the Inhibition of Herpesviruses. Canadian Federation of Biology Society Abstract No. 225.

Babiuk, L.A. and Rouse, B.T. 1975. Interferon Production by Bovine Lymphocyte Macrophage Cultures. 56th Annual Conference of Disease Workers Abstract No. 17.

Rouse, B.T., Babiuk, L.A. and Wardley, R.C. 1975. The Role of Antibody Dependent Cytotoxicity in Recovery from IBR Virus Infections. 56th Annual Conference of Disease Workers Abstract No. 21.

Babiuk, L.A. and Rouse, B.T. 1975. Ribonucleotides in Infectious Bovine Rhinotracheitis Virus. Canadian Federation of Biology Society Abstract No. 154.

Wardley, R.C., Babiuk, L.A. and Rouse, B.T. 1975. Mechanisms of Immunity to Infectious Bovine Rhinotracheitis Virus. Canadian Federation of Biology Society Abstract No. 154.

Rouse, B.T. and Babiuk, L.A. 1974. Cell Mediated Immunity Against IBR Virus. 55th Annual Conference of Research Workers in Animal Diseases, Abstract No. R-6.

Fauvel, M., Babiuk, L.A., Sheaff, E.T. and Spence, L. 1973. Preparation of Dane Core (Hepatitis B) Antigen for Use in the Immune Electron Microscopy Test. Canadian Public Health Association Abstract No. R-6.

Babiuk, L.A. 1972. "Integration" of Polyoma DNA Into Mammalian Genomes. Canadian Federation of Biology Society Abstract No 290.

Babiuk, L.A. and Hudson, J.B. 1971. The State of the Viral Genome in Polyoma Virus Transformed Cells. Canadian Federation of Biology Society Abstract No. 631.

TECHNICAL REPORTS RELEVANT TO ACADEMIC FIELD

Babiuk, L.A. 1978. An Overview of Veterinary Virology. University of Saskatchewan, Department of Continuing Veterinary Education, 27 pp.

INVITED LECTURES OUTSIDE U OF S

Note: Lectures after 1985 not included - too numerous to include.

Apr-05

- L.A. Babiuk. 1985. Potential role of biotechnology in animal health. April. Kalamazoo, Michigan.
- L.A. Babiuk. 1985. Shipping Fever in cattle. January. Saskatoon, Saskatchewan for the Saskatchewan Veterinary Medical Association Meeting.
- L.A. Babiuk. 1985. Application of monoclonal antibodies for identification of bovine herpesvirus glycoproteins. February. Winnipeg, Manitoba.
- L.A. Babiuk. 1985. Monoclonal antibodies in Biology. February. Saskatoon, Saskatchewan at Kelsey Institute.
- L.A. Babiuk. 1985. Viral bacterial synergism - Use of interferon to reduce BHV-1 pasteurella induced respiratory disease. February. Winnipeg, Manitoba.
- L.A. Babiuk. 1985. Use of monoclonal antibodies to characterize BHV-1 glycoproteins. March. Toronto, Ontario.
- L.A. Babiuk. 1984. Characterization and processing of BHV-1 glycoproteins. December. Calgary, Alberta.
- L.A. Babiuk. 1984. Effect of interferon on bovine leukocyte function. December. San Francisco, California.
- L.A. Babiuk. 1984. Interferon in bovine respiratory disease. March. Gainesville, Florida.
- L.A. Babiuk. 1984. Glycoprotein of bovine herpesvirus. March. Gainesville, Florida.
- L.A. Babiuk. 1984. Enteric viral infections in humans. March. Edmonton, Alberta.
- L.A. Babiuk. 1984. Immune responses to bovine herpesvirus glycoprotein. April. Plant Biotechnology Institute in Saskatoon, Saskatchewan.
- L.A. Babiuk. 1984. Veterinary research. April. SEDCO Centre, Saskatoon, Saskatchewan.
- L.A. Babiuk. 1984. Characterization of the bovine immune response to BHV-1 glycoproteins. March. Edmonton, Alberta.
- L.A. Babiuk. 1984. Characterization of the bovine immune response to BHV-1 glycoproteins. March. Edmonton, Alberta.
- L.A. Babiuk. 1984. Viral-bacterial Synergistic Interaction in respiratory disease. June. Canadian Federation Biological Societies Annual Meeting - Saskatoon, Sask.
- L.A. Babiuk. 1984. Viral induced immunosuppression by BHV-1 virus. June. Workshop on viral induced Immunosuppression. Sponsored by Medical Research Council of Canada. Montreal, Quebec.
- L.A. Babiuk. 1984. Bovine herpesvirus. July. Canadian Veterinary Medical Association Convention, Guelph, Ontario.
- L.A. Babiuk. 1983. Experimental models for bovine respiratory disease. September. Amarillo, Texas.
- L.A. Babiuk. 1983. Effects of levamisole and bovine interferon 1 on bovine immune responses and susceptibility to bovine herpesvirus. September. Washington, D.C.
- L.A. Babiuk. 1983. BHV-1 glycoproteins - Biochemical and functional characteristics. September. Minneapolis, MN
- L.A. Babiuk. 1983. Viruses in bovine respiratory diseases. October. Washington, D.C.
- L.A. Babiuk. 1983. Bovine herpesvirus glycoproteins. NRC. Saskatoon, Saskatchewan.
- L.A. Babiuk. 1983. Murine cytomegalovirus - Pseudomonas synergistic infections. December. San Francisco, California.
- L.A. Babiuk. 1983. Clinical applications of bovine interferon in bovine respiratory disease. Genentech. January. San Francisco, California.
- L.A. Babiuk. 1983. Overview of bovine respiratory disease. USDA-FDA. March.

Apr-05

Washington, D.C.

L.A. Babiuk. 1983. Efficacy of bovine interferon in IBR-pasteurella model for shipping fever. USDA-FDA. March. Washington, D.C.

L.A. Babiuk. 1983. Animal virus induced gastroenteritis. March. Kuwait.

L.A. Babiuk. 1983. Viral-bacterial synergistic interactions in respiratory infections. March. Kuwait.

L.A. Babiuk. 1983. Defense mechanism against virus infection. Ontario Veterinary College. March. Guelph, Ontario.

L.A. Babiuk. 1983. Advances in biotechnology and applications in veterinary medicine. Ontario Veterinary College. March. Guelph, Ontario.

L.A. Babiuk. 1983. Infectious bovine rhinotracheitis - the virus, the disease and the immune response. Ontario Veterinary College. April. Guelph, Ontario.

L.A. Babiuk. 1983. Rotavirus infections in cattle. Ontario Veterinary College. April. Guelph, Ontario.

L.A. Babiuk. 1983. Recent advantages in shipping fever. Ontario Veterinary College. April. Guelph, Ontario.

L.A. Babiuk. 1983. Interferon. CSLT Meeting. May. Saskatoon, Saskatchewan.

L.A. Babiuk. 1983. Recent progress in bovine respiratory disease. CVMA Convention. July. Calgary, Alberta.

L.A. Babiuk. 1983. Efficacy of bovine interferon in clinical trials. July. San Francisco, California.

L.A. Babiuk. 1983. Effect of levamisole and bovine interferon alpha on bovine immune responses and susceptibility to bovine herpesvirus-1. Chemical Modulators in Immunity. September. Washington, D.C.

L.A. Babiuk and Acres, S.D. 1983. Experimental models for bovine respiratory disease. North American Symposium on Bovine Respiratory Disease. September. Amarillo, Texas.

L.A. Babiuk. 1979. Herpesvirus - latency and immune control. University of Calgary. Calgary, Alberta.

L.A. Babiuk. 1979. Herpesvirus vaccination and immunity. A.D.R.I. February. Ottawa, Ontario.

L.A. Babiuk. 1978. Biological role of interferon. University of Tennessee. March. Knoxville, Tennessee.

L.A. Babiuk. 1978. Immune responses to herpesviruses. University of Victoria. December. Victoria, British Columbia.

L.A. Babiuk. 1978. Immunity to herpesviruses and latency. University of Manitoba. November. Winnipeg, Manitoba.

L.A. Babiuk. 1978. Defense mechanisms to herpesvirus. University of Utah. Salt Lake City, Utah.

L.A. Babiuk. 1976. Advantages and disadvantages of vaccines. Annual Veterinary Medicine Association Convention. February. Edmonton, Alberta.

L.A. Babiuk. 1976. Advantages and disadvantages of vaccines. Saskatchewan Veterinary Medicine Association Convention. January. Saskatoon, Saskatchewan.

L.A. Babiuk. 1975. Immune responses to infectious bovine rhinotracheitis virus. University of Florida. March. Gainesville, Florida.

L.A. Babiuk. 1975. Bovine immunity. University of Iowa. December. Ames, Iowa.

Apr-06

ARTISTIC EXHIBITION OR PERFORMANCES

L.A. Babiuk. 1977. Three T.V. films, 45 minutes each. Update on Veterinary Virology. Western College of Veterinary Medicine, Saskatoon, Saskatchewan.

PROFESSIONAL PRACTICE

Presentation to Recycled Veterinary Program (Federal Government) 8 hrs. 1985.

Three - 1 hour television programs - Televet - 1984.

Presentation to Hub City Holstein Association. 1983.

Presentation to Provincial Medical Officers and Federal Government practitioners. Rabies and related diseases. Prince Albert. 1981. Winnipeg. 1981.

Presentation to Recycled Veterinary Program (Federal Government) - 12 hours - 1983; 12 hours - 1982; 12 hours - 1981; 12 hours - 1980.

Presentations on virology for veterinarians:

1978 - Lethbridge - 6 hours
 - Edmonton - 6 hours
 - Red Deer - 6 hours
 - Calgary - 6 hours
 - Kamloops - 6 hours
 - Cranbrook - 6 hours
 - Vancouver - 6 hours
 - Victoria - 6 hours
 - Winnipeg - 6 hours
 - Brandon - 6 hours

Presentation to Recycled Veterinary Program (Federal Government) - 16 hours - 1978.

Presentations on virology for veterinarians:

1977 - Swift Current - 6 hours
 - Regina - 6 hours
 - Carlyle - 6 hours
 - Yorkton - 6 hours
 - North Battleford - 6 hours

Presentations to Recycled Veterinary Program (Federal Government), 1977 (16 hours).

Presentations to Animal Nutrition Course (Saskatoon), January, 1976; February, 1976.

Presentation to Recycled Veterinary Program (Federal Government), 1976; (8 hours).

Presentations to Animal Nutrition Course (Saskatoon), January, 1975; February, 1975; November, 1975.

Presentation to Animal Nutrition Course (Saskatoon), November, 1974

DEPARTMENTAL AND COLLEGE COMMITTEES

Apr-05

Glassware Media Preparation Laboratory Supervisor, 1975-93
Diagnostic Virology, Supervisor, 1975-84
Bovine, Respiratory Disease Program, Chairman, 1983-90
Curriculum Planning, Member, 1976-79
Second Year Teachers, Chairman 1976 and 1979, Member, 1974-94
Electron Microscope, Chairman 1975-78, Member, 1974-78
Admissions Interview, Member 1974-78
Animal Resources, Chairman, 1974-76; Member, 1973-74

UNIVERSITY COMMITTEES

Life Sciences Executive, Member 1980-83
Biohazards Committee, Chairman, 1977-1999
Member, 1999-present
Occupational Health Committee, Member, 1980-83
Microbiology Curriculum Committee, Chairman, 1977-83, Member 1974-83
Agricultural Biotechnology Committee, Member, 1982-1990
Ad hoc Committee on Biotechnology, Member, 1982
Life Science Executive of Graduate Studies, Member 1978-80
CIHR Advisory Committee, 2000-present

PROFESSIONAL AND ASSOCIATION OFFICES AND COMMITTEE ACTIVITY OUTSIDE UNIVERSITY

Grant Review Committees:

Member, MRC - Fellowship Grant Committee 1986-88
Chairman, NSERC Biotechnology Strategic Grants Committee, 1986-87
Member, MRC Microbiology and Infectious Disease Grants Committee, 1976-82
Member MRC Major Equipment Grant Review Committee, 1984-85
Member, NSERC Biotechnology Strategic Grants Committee, 1984-87
Member - MRC Program Grants Review Committee 1989-92
Member - MRC Microbiology & Infectious Disease Grant Committee 1996- 1997
Member - MRC Virology & Viral Pathogenesis Committee 1998-1999
Member - IHRT - CIHR Committee - 2000

External Reviewer:

Dept. of Microbiology, University of British Columbia, Vancouver, BC - 1996
Dept. of Micro & Immunol, University of Western Ontario, London, ON. - 2001
Dept. of Micro & Immunol. Queens University, Kingston, ON. - 2002

Government Committees:

Apr-05

CARC Standing Committee on Biotechnology - 1983-94
Member, National Academy of Sciences (USA) Board on Agriculture Committee - 1984-86
Member of National Biotechnology Advisory Committee - 1988-98
Member of National Biotechnology Advisory Committee Agribusiness Subcommittee - 1989-96
Member of National Biotechnology Advisory Committee Biopharmaceutical Subcommittee - 1989-96
Chairman of Health and Welfare/MRC Committee on Biohazards - 1987-1990
Member of National Research Council Institute of Biological Sciences Board of Governors - 1990-94
Member of Health and Welfare Large Scale Fermentation Guidelines - 1991-96
Chairman of Health Canada - Biosafety Advisory Committee - 1994-99
Member of Natural Sciences & Engineering Research Council - 1996-1999
Member of National Sciences & Engineering Research Council Executive Committee - 1998-1999
Chairman of Natural Sciences & Engineering Research Council - Funding Re-allocations Committee - 1997-1998
Member of MRC Business Development Committee - 1993-97
Member of Board of Directors - Canadian Foundation for Innovation - 1997-present
Chair of Audit Committee - Canadian Foundation for Innovation - 1997-present
Member of National Xenotransplantation Committee - 1997-1999
Member of Expert Committee on Xenotransplantation - 1999-2004
CARC Steering Committee on Canadian Biotechnology Strategy - 1998
Member of Saskatchewan Research Council Fermentation Facility Advisory Board - 1999-present
Member - Canadian Biotechnology Advisory Committee - 1998-2004
Chair - Stewardship Committee of Canadian Biotechnology Advisory Committee - 1998-2004
Member - Executive Committee of Canadian Biotechnology Advisory Committee - 1998-2004
Member - Genome Canada Board - 2000 - present
Chair - Genome Canada Audit Committee - 2000-present
Chair - CIHR - Infection and Immunity Institute Advisory Board - 2000-present
Member - Alberta Heritage Fund for Medical Research: Technology Commercialization Committee - 2000-present
Member - Board of Directors - CANVAC - 2001-present
Member - Ministerial Advisory Committee on CBRN Safety, Security and Research - 2002-present
Member - Canada Research Chair, College of Reviewers - 2002-present
Member - NRC (USA) Board on Agriculture and Natural Resources - 2004-2005
Member of Scientific Advisory Board - Health Canada - 2004-present

Professional Activities:

Member of CSM Biotechnology Committee - 1982-84
Member of CDA Biotechnology in Agriculture Task Force - 1983-84

Apr-05

Ph.D. Program Review, Department of Veterinary Microbiology and Immunology, University of Guelph - 1983

Chairman, Virology Section, Canadian Society of Microbiology - 1982-84

Vice-Chairman, Virology Section, Canadian Society of Microbiology - 1980-82

Associate Editor, Canadian Journal of Microbiology - 1979-1984

Visiting Professor, University of Guelph - 1983

Editorial Advisory Board, Progress in Veterinary Microbiology Series - 1983-present

Editorial Board. Can. J. Comp. Med. - 1984-1990

Editorial Board - Antiviral Research - 1986-2000

Editorial Board - Current Opinions in Microbiology - 1997-present

Editorial Board - Viral Immunology - 1997-2000

Member, International Conferences on Comparative Virology Organization Committee - Canadian Advisor - 1987-present

Advisor - Kelsey Institute Biological Sciences Program - 1986-94

Contributor - Merck Manual in Veterinary Medicine - 6th & 7th Edition

Member of the Scientific Advisory and Budget Committee - Canadian Bacterial Disease Network Centre of Excellence (CBDN) - 1990-present

Member Board of Directors - Canadian College of Microbiologists - 1991-95

Vice-President, Board of Directors - Canadian College of Microbiologists - 1993-95

Member, Board of Advisors, IBS NRC - 1990-94

Founding Member Board of Directors - Saskatchewan Drug Institute - 1993-present

Member of Executive Committee - Saskatchewan Drug Institute - 1993-present

Member, Board of Directors - Pharmaderm - 1998-2000

Member, Board of Directors - Termidor - 1998-2000

Member, Medical Advisory Board - Helix Biopharma Corp. - 1999-present

Member, Board of Directors - Prairie Plant Systems - 1999-present

Member, Board of Directors - National Medical Technology Testbed (USA) 2000-2004

Member - Royal Society of Canada - Fellowship Selection Committee - 2000-2004

Member, Board of Directors - Inimex - 2002-present

Member, Council of Scientists - International Human Frontiers Science Program - 2003-present

Member of Scientific Advisory Board - EVAX - 1998-2002

Member of Scientific Advisory Board - Helix Biotech - 1998-2004

Member Scientific Advisory Board - University of Connecticut - Pfizer Centre of Excellence in Vaccine Research - 1999

Member, Scientific Advisory Board - Novalipids - 2000-present

Chair - Scientific Advisory Board - Bio-ID Diagnostics Inc. 2000-2002

Member - Scientific Advisory Board - Cytovax - 2000-2001

Member - Scientific Advisory Board - Foragen Technology Ventures - 2000-present

Member - Scientific Advisory Board - Lombard Life Sciences - 2002-present

Member - Board of Directors - International Centre for Infectious Diseases - 2004-present

Meeting Organizing Committees:

2002 Encroachment on wildlife ecosystems: New and emerging viral infections - Amsterdam, Holland. June 9-12.

2002 Third World Congress on Vaccines and Immunization - Opatija, Croatia. June 4-7.

2002 DNA Vaccines 2002 - Edinburgh, Scotland. Oct. 23-25.

Apr-05

2004 DNA Vaccines 2004 – Monte Carlo, Monaco Nov. 17-19

2004 World Congress on Vaccines & Immunization – Tsukuba, Japan Sept. 30-Oct.3

Consultant:

- Genentech - 1982-86
- Molecular Genetics Inc. - 1980-84
- CIBA-GEIGY - 1986-90
- BIOSTAR - 1984-95
- Qiagen 1999-2003
- Bioniche Life Sciences 1999-present
- ID Biomedical 2004-present

Reviewer For:

Canadian Journal of Comparative Medicine
Canadian Journal of Microbiology
Journal of Infectious Diseases
Journal of Clinical Microbiology
Veterinary Pathology
Journal of Immunology
Antiviral Research
American Journal of Veterinary Research
Journal of Virology
Virology
Vaccine
Viral Immunology
Virus Research
Journal of Clinical Microbiology

Grant Reviewer For:

MRC/CIHR
NSERC
Health and Welfare Canada
British Columbia Health Care
Ontario Ministry of Health
Alberta Heritage Foundation for Medical Research
National Science Foundation
Canadian Diabetes Association
Irish National Board for Science and Technology
United States Department of Agriculture - Competitive Grants Program
National Institutes of Health (NIH – USA)
Human Frontiers Program (Europe)
European National grants (various countries)
Hospital for Sick Children Foundation

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